

REMARKS

Claims 10-18 are pending in the present application. Claims 10 and 15 were amended in this response. No new matter was introduced as a result of the amendments. Support for the amendments may be found, for example in paragraphs [0021-24] of the present specification. Entry of the amendments and favorable reconsideration is respectfully requested.

Claims 10-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Nagao et al.* (US Patent 6,394,898). Applicant respectfully traverses these rejections.

Specifically, *Nagao* fails to teach or suggest the features of simulating a movement in a predetermined direction relative to a reference point in the surroundings of an acoustic reproduction device . More specifically, *Nagao* fails to teach or suggest the features of “producing at least two virtual sound sources via the acoustic reproduction device, wherein each of the at least two virtual sound sources are arranged in succession with regard to time” and a control unit that “controls simultaneous repeated movement of each of the at least two virtual sound sources in succession from a predetermined starting point to a predetermined ending point as a function of time, and wherein each virtual sound source is moved in succession back again to the starting point after reaching the predetermined ending point, and wherein the control unit controls a direction of movement for the at least two virtual sound sources such that the direction of movement coincides with the direction of the movement to be simulated” as recited in claim 10 and similarly recited in claim 15.

In contrast, *Nagao* discloses a gaming device where each user stands at a satellite station (22), equipped with its own speaker (SP1-SP12). A plurality of sound sources (1-12) connected to a sound source controller (100) input sounds to each respective speaker via a hoofbeat generation unit (38) (FIG. 3; col. 7, lines 29-46). *Nagao* further teaches that the position of each horse is monitored, and the sound source controller (100) adjusts the volume (1-16, see FIG. 4) for each speaker to simulate the passing of the horses. As can be seen in FIG. 4, each speaker will produce a sound volume relative to the physical position of the horses near the satellite occupied by a user - when the horses pass, the sound is cut out completely (col. 8, lines 6-30: “the speakers SP 6, SP 7 do not output hoofbeats”).

The Office Action correctly recognizes that *Nagao* does not disclose the sound sources being arranged in succession with regard to time. However, the Office Action goes on to assert that such a configuration is possible within the teaching of *Nagao* (see Office Action, page 3,

second paragraph). Applicant respectfully submits that such a configuration is not disclosed in Nagao, and that Nagao teaches away from such a configuration. Under the present amendments, the claims clarify that the starting/ending points are determined as a function of time. Under Nagao, the “starting” and “ending” points only relate to the physical placement of the start/finish line of a horse race (FIG. 1). The sound emanating from the speakers is directly related to the position of the horses, and is not related to a function of time.

The Office Action suggests that the horse race in Nagao may be “rigged” (notably, in a manner that completely defeats the purpose of a horse race), where horses may be set behind one another and moved at a constant rate. However, this interpretation fails to take into consideration that the present claims recite that “each virtual sound source is moved in succession back again to the starting point after reaching the predetermined ending point.” Since the points in the claims are defined as functions of time, the successive movements of the sound sources would result in the leading sound source becoming a lagging sound source at the moment the source is moved from the end to the beginning (see [0023] of the present application for further illustration). In Nagao, it appears impossible to replicate the sound of horses and manipulate them as a function of time in the same manner.

Additionally, Claim 11 recites that movement by the at least two virtual sound sources is effected essentially at right angles to a connecting line between a reference point and a point in the center between the starting point and the ending point of the movement by the at least two virtual sound sources. Nagao discloses no such configuration - the Office Action fails to reconcile how speakers 1 and 5 are suddenly interpreted as starting/ending points for the purposes of claim 11, while simultaneously interpreting the start/finish line of Nagao for the same feature for claim 10..

Similarly, Claim 12 recites that for each virtual sound source, there is an increase in the sound intensity from the starting point to the mid-point, and a decrease in the sound intensity from the mid-point to the ending point. FIG. 4 and related text clearly discloses that the volume adjustments are made with respect to each individual speaker. Thus, it would run contrary to the teaching in Nagao to have, for example, the volume in SP 1 *increase* as the horse moves *away* from SP 1 and towards SPs 3 and 5.

For at least these reasons, Applicant respectfully submits the rejection is overcome and should be withdrawn. Accordingly, Applicants respectfully request that a timely Notice of

Allowance be issued in this case. If any additional fees are due in connection with this application as a whole, the Examiner is authorized to deduct such fees from deposit account no. 02-1818. If such a deduction is made, please indicate the attorney docket no. (0112740-1068) on the account statement.

Respectfully submitted,

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